



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604**

**DATE:** March 10, 2021

**SUBJECT:** CLEAN AIR ACT INSPECTION REPORT  
Outagamie County Landfill, Appleton, Wisconsin

**FROM:** Daniel Heins, Environmental Scientist  
AECAB (IL/IN)

**THRU:** Constantinos Loukeris, Acting Section Chief  
AECAB (IL/IN)

**TO:** File

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**BASIC INFORMATION**

**Facility Name:** Outagamie County Landfill

**Facility Location:** 1419 Holland Road, Appleton, WI 54911

**Date of Inspection:** February 4, 2021

**EPA Inspector(s):**

1. Daniel Heins, Environmental Scientist
2. Vicky Mei, Environmental Engineer

**Other Attendees:**

1. Chris Anderson, Environmental Consultant – FOTH
2. Jeff Vanderbusch, Lead Environmental Scientist – FOTH
3. Gregg Parins, Solid Waste Superintendent – Outagamie County
4. Joseph Guidote, County Counsel – Outagamie County
5. Kyle Sargent, Deputy County Counsel – Outagamie County
6. Brian Van Straten, Director of Solid Waste – Outagamie County

**Contact Email Address:** gregory.parins@outagamie.org

**Purpose of Inspection:** CAA compliance in response to complaint

**Facility Type:** Municipal solid waste (MSW) landfill

**Regulations Central to Inspection:** 40 CFR Part 60 Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014; 40 CFR Part 60 Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

**Arrival Time:** 13:00

**Departure Time:** 14:30

**Inspection Type:**

- ☐ Unannounced Inspection
- ☒ Announced Inspection

**OPENING CONFERENCE**

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☐ Provided Small Business Resource Information Sheet
- ☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
- ☒ Provided CBI warning to facility

The following information was obtained verbally from facility representatives via remote teleconference.

**Process Description:**

The Outagamie Landfill presently has three sections. The West and East Landfills are both closed, while the Northeast Landfill is currently receiving waste. The landfill accepts municipal solid waste (MSW), construction and demolition waste, and industrial waste, with approximately 60% being MSW. The landfill does accept asbestos waste. Paper mill sludge or synthetic spray-on coatings are used for daily cover, and clay is used for intermediate cover. Final cover is composed of a geomembrane, two feet of clay, another membrane, a geocomposite drainage layer, 30 inches of rooting zone material, and 6 inches of topsoil. Each landfill section has its own leachate system, with collected leachate sent to neighboring wastewater treatment plants. Leachate recirculation is used occasionally to reduce loading on the wastewater treatment plants. If any gas collection wells have greater than 50% obstruction by water for two consecutive quarters, pumps are installed to remove the water.

The site has a gas collection and control system (GCCS) pursuant to the NSPS Subpart WWW. Landfill gas (LFG) is collected with a well system and controlled with two flares, one open and one closed. The GCCS is a single connected system, though sections can be isolated as needed. Quarterly surface emissions monitoring (SEM) is contracted out to FOTH. In addition to following a serpentine path over the surface of the landfill, the FOTH technicians manually check every penetration, as well as cracks and areas of distressed vegetation. Exceedances are typically found at penetrations, and the Northeast Landfill typically sees the most exceedances.

Exceedances are followed up with corrective actions and re-monitoring. Wellhead parameters are monitored manually on a monthly basis and adjusted accordingly as needed.

**Staff Interview:** The landfill had a gas-to-energy contract with Outagamie Clean Energy Project, LLC that concluded on December 2, 2020. When this was operational, most collected LFG was sent to four internal combustion engine generators, with excess gas being flared off. The enclosed flare is the primarily operated flare, while the open flare is used as needed. The landfill has a partnership with MAS Outagamie, LLC to install a renewable natural gas (RNG) facility for the LFG, which has submitted a permit application to WDNR. Outagamie County has submitted also permit applications for an 80-acre expansion on the northwest side of the site, as the Northeast Landfill should be full in approximately three years. The enclosed flare has seen issues with vibrations at full flow, which the County is working on resolving with the manufacturer. The open flare is used to make up the difference in capacity.

Outagamie County staff stated that cover integrity monitoring occurs during wellhead monitoring and all other times with staff on landfill, with issues corrected upon being found. They do not presently include documentation of this monitoring, though they indicated that they would begin to include this documentation in the wellhead monitoring reports.

The landfill has an NCM-brand odor control system operating 24/7 along the peripheries of the East and Northeast Landfills. Outagamie County installs gas collection wells as soon as practicable to minimize emissions, and the Northeast Landfill has horizontal wells installed every 30 feet. Staff conduct weekly odor monitoring on Monday mornings, recording odors and meteorological data, as well as plans for correction as applicable. The facility maintains a log of odor complaints and responses.

### **TOUR INFORMATION**

**EPA Tour of the Facility:** No

### **CLOSING CONFERENCE**

☒ Provided U.S. EPA point of contact to the facility

### **Requested documents:**

- RNG Contract
- Complaint log – past year
- LFG Sulfur Analysis Reports – most recent and highest reported levels
- Current GCCS map
- 2020 waste disposal tonnage by type
- Well leachate levels – past 2 years
- SEM Reports – past 2 years
- Semi-annual compliance reports – past 2 years
- Current GCCS design plan
- Odor Plan

- Odor control system product information
- Odor monitoring forms – past 5 months
- Active air permits and applications
- Most recent performance test for the enclosed flare
- Flare operating parameter monitoring – past 12 months
- Wellhead parameters monitoring, including records for correction of any exceedances – past 12 months

**Concerns:** EPA informed Outagamie Landfill that they should be documenting their cover integrity monitoring and associated corrective actions, in accordance with Permit 445012370-P20 conditions I.A.1.c(2)(aa) & (ab). They indicated that they would start including this documentation in future wellhead monitoring reports.

### **DIGITAL SIGNATURES**

Report Author: \_\_\_\_\_

Section Chief: \_\_\_\_\_